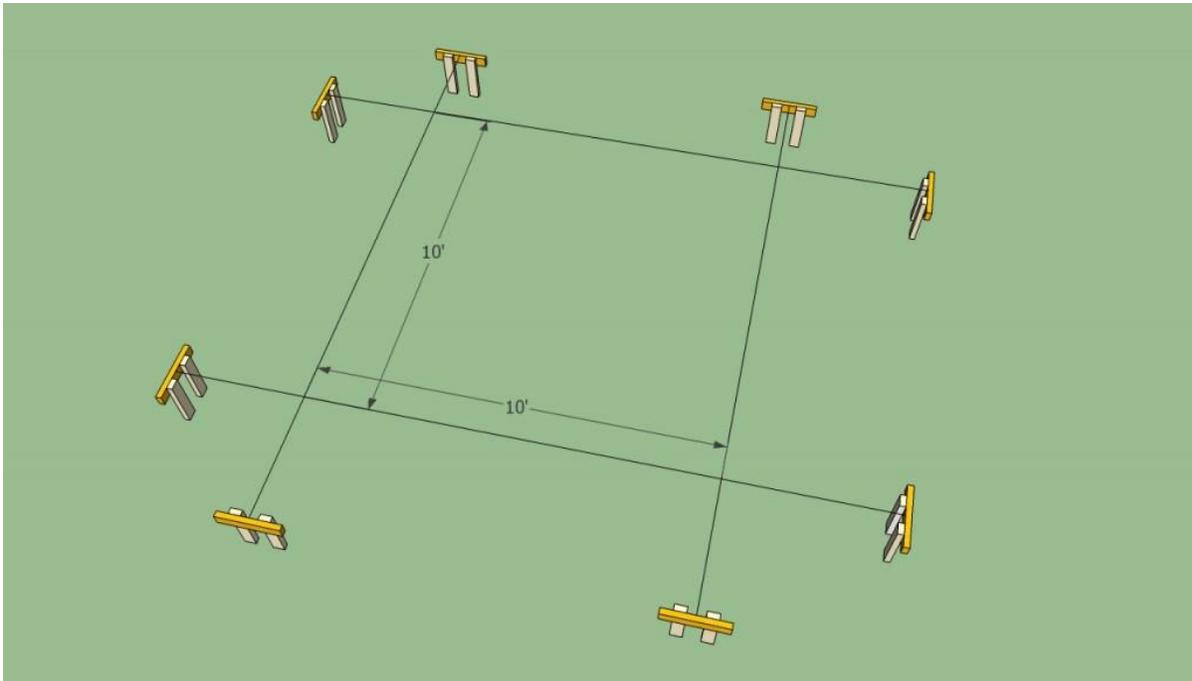


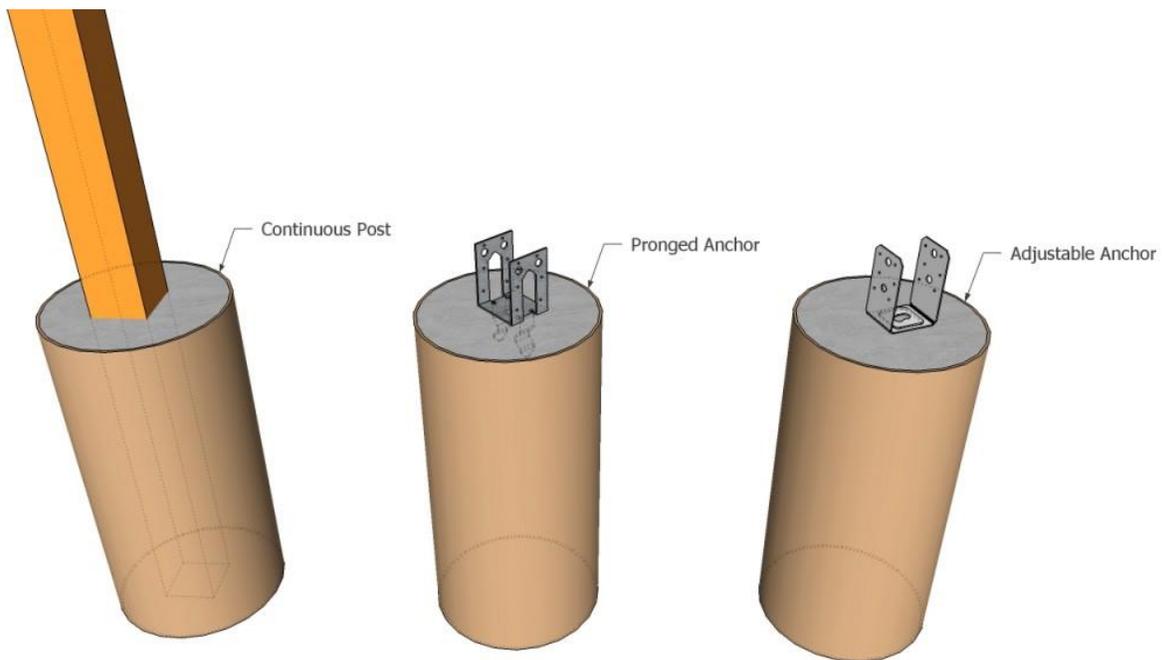
Pergola Building Plans



Pergola layout

First of all, you have to lay out the pergola, after choosing the place where you want to build it. In order to get the job done like a pro, we recommend you to build batter boards from 2x4s and use string, as in the image. Measure the diagonals to make sure they are equal, otherwise the corners won't be right angled.

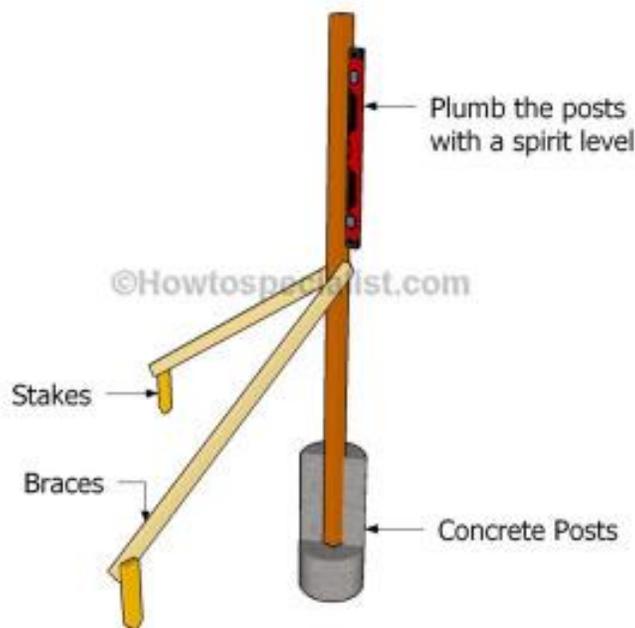
Smart tip: Use the 3-4-5 rule along each corner to ensure the angles are of 90°.



Anchoring the post into concrete

Generally speaking, there are many ways in which you could anchor the posts into place. On one hand, you could dig 2-3' deep holes, pour 2" of concrete, set the posts (plumb them with a level) and brace

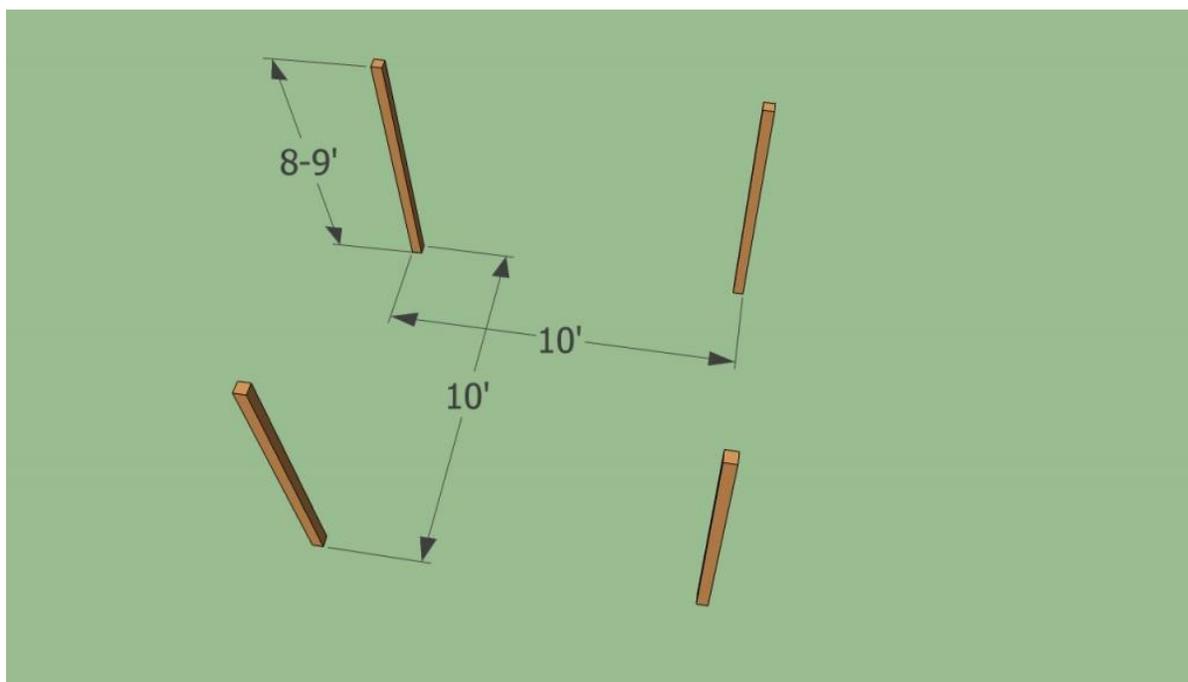
temporarily them with 2x4 slats, before filling the hole with compound. Secondly, you could place a tube form and install the adjustable anchor in concrete, or secure a post hardware to a concrete slab with anchor bolts.



Fitting the posts

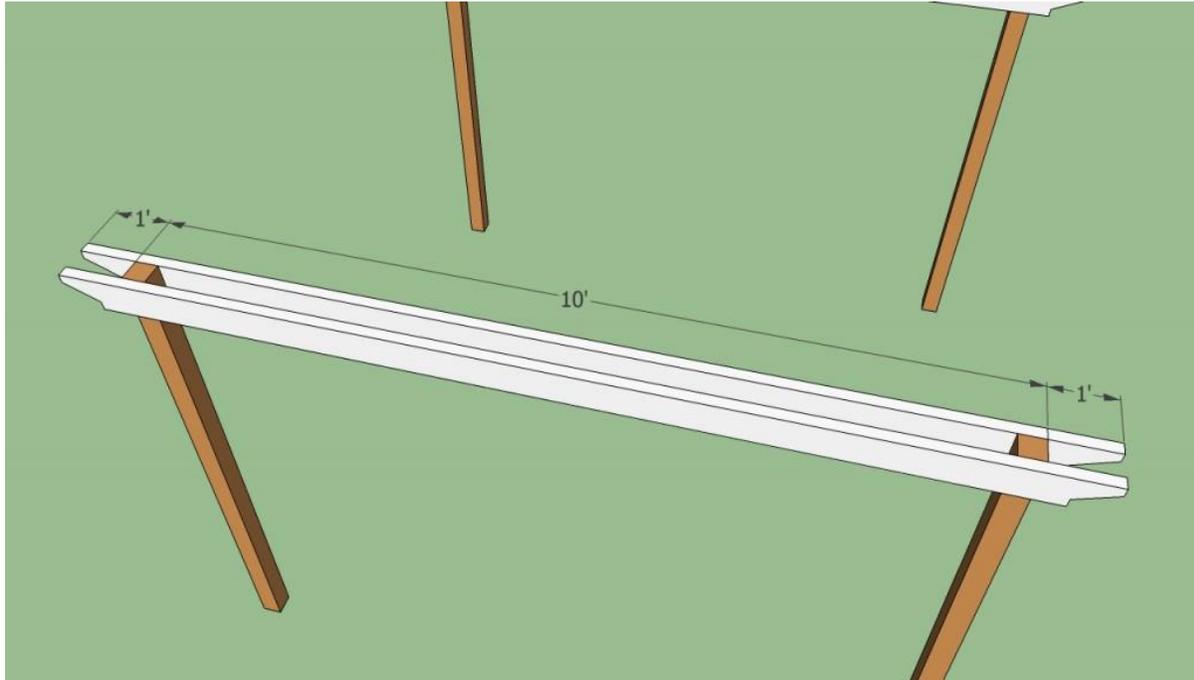
Setting the posts in concrete will give your pergola the greatest support. Dig 3' deep holes (10-15" in diameter), pour a 3" layer of gravel and compact it thoroughly. Next, we recommend you to use tube forms, mix a small quantity of concrete (2 parts cement, 3 parts sand, 4 parts gravel and water) and pour it until you have filled the forms.

Smart Tip: After you have leveled the surface with a trowel, you should install adjustable posts anchor or set the posts directly in the tube forms using braces. Leave the concrete to dry out for several days and install the posts.



Pergola plans

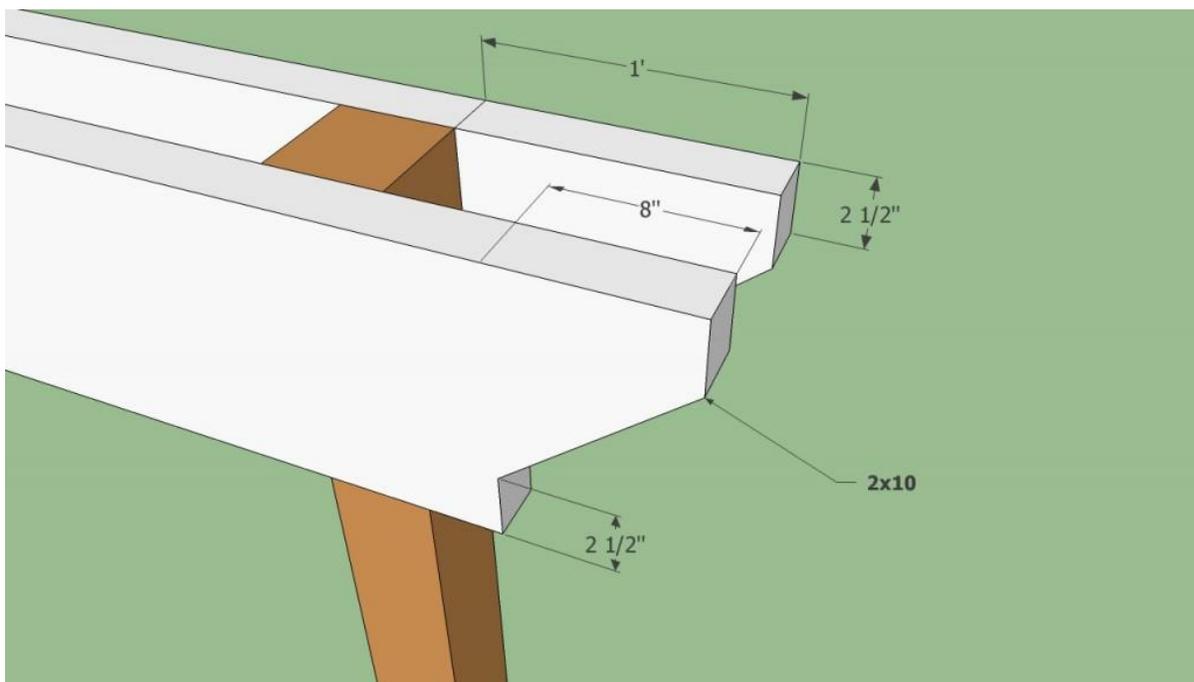
If you work by yourself, the best way to install the 4×4 or 6×6 posts into position is to brace them on two directions, plumb them with a spirit level and then drive in the screws or bolts. As you can see in the image, this project is about a 10'x10' pergola, but you can adjust these dimensions according to your needs and tastes. Therefore, you can make it larger or even choose to build a rectangular pergola.



Installing support beams

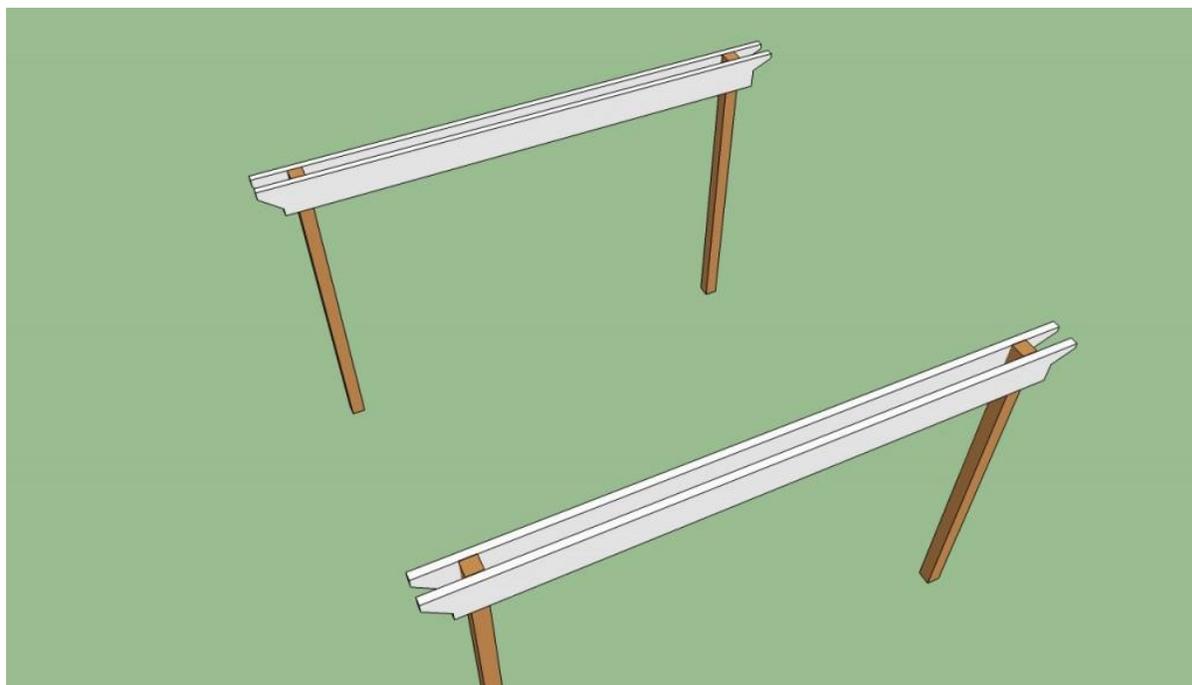
After setting the posts into position, you should install the support beams by driving in 7" carriage bolts. In most of the cases, the support beams should be build from 2×10 timber, but you can use 2×6 or 2×8 as well. Clamp the beams to the top of the posts, making sure the edges are aligned and they are perfectly horizontal.

Smart Tip: Drill pilot holes through the posts and beams before inserting the 7" carriage bolts. The 2×10 support beams should be about 12' long, but you can build them a little longer if you want make them stand out. In order to support the shade elements you have to install two beams on two sides of each posts.



Pergola support beam plans

The support beams and the shade elements have decorative ends to provide a add character to the pergola. The size of the cuts should vary according to the size of the beams you use, but in our case we have used the right proportions to fit with the rest of the pergola elements.



Pergola plans

After installing the support beams on one side of the pergola, you have to proceed in the same manner for the opposite side. Work with great care when cutting the ends of the wooden boards, to obtain a neat look and design. In order to get the job done quickly and accurately, we recommend you to cut out the ends by using a jigsaw with a sharp blade. Use a spirit level to make sure the beams are aligned properly and perfectly horizontal.

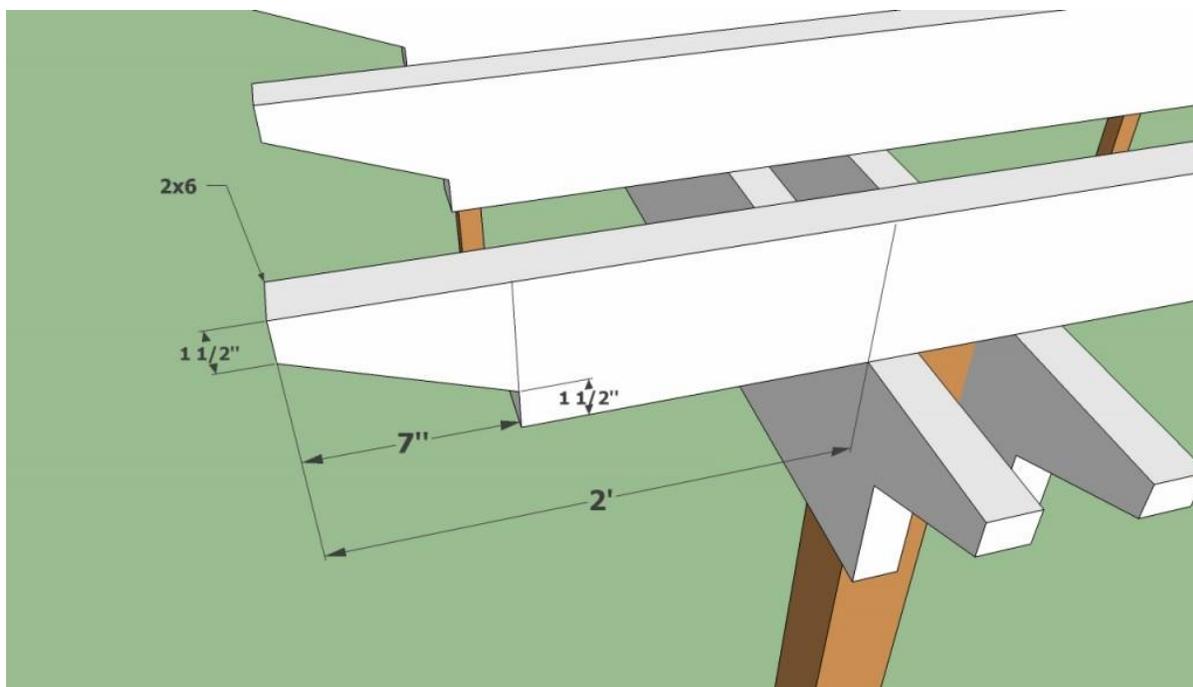
Free Pergola Plans



Diy pergola plans

The next step of the diy pergola project is to install the shade elements. If you use the right plans for your needs and tastes, you will build a large patio pergola which will add value to your property and become the focus point of your backyard.

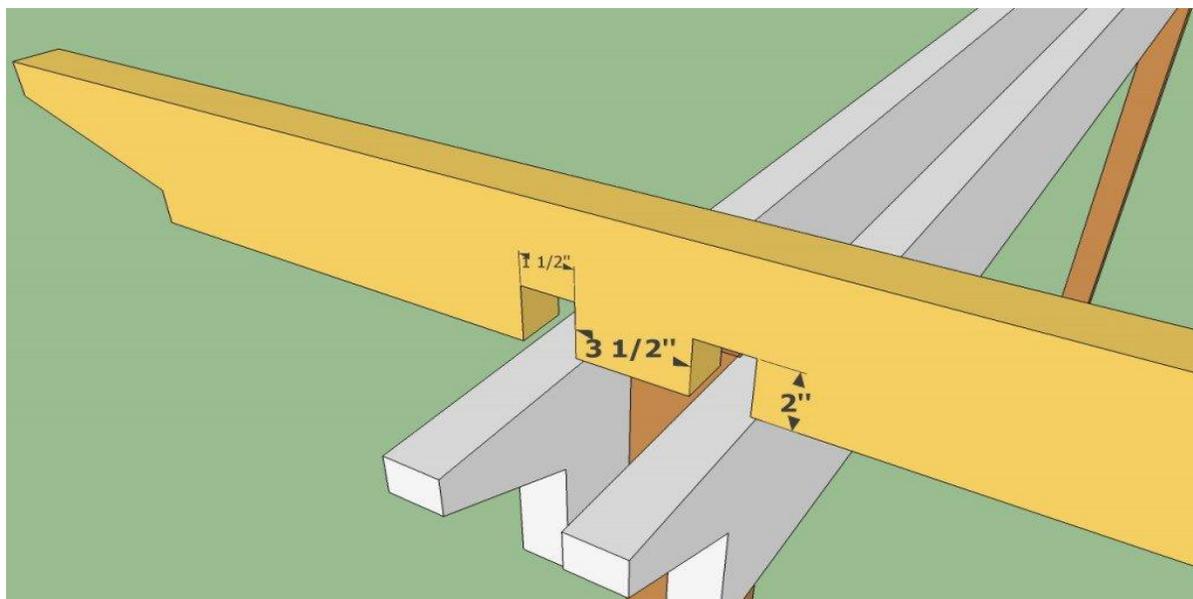
Smart Tip: Use 2×6 lumber to build the shade elements and place them on top of the support beams, every 12-16". Use a spirit level to plumb the crossbeams, before inserting the screws.



Installing shade elements

Securing the shade elements into position can be done in several ways, but you should choose the method you find the most convenient. Firstly, you could use 14' long 2×6 beams, cut their ends as in the image, and fasten them to the support beams with screws.

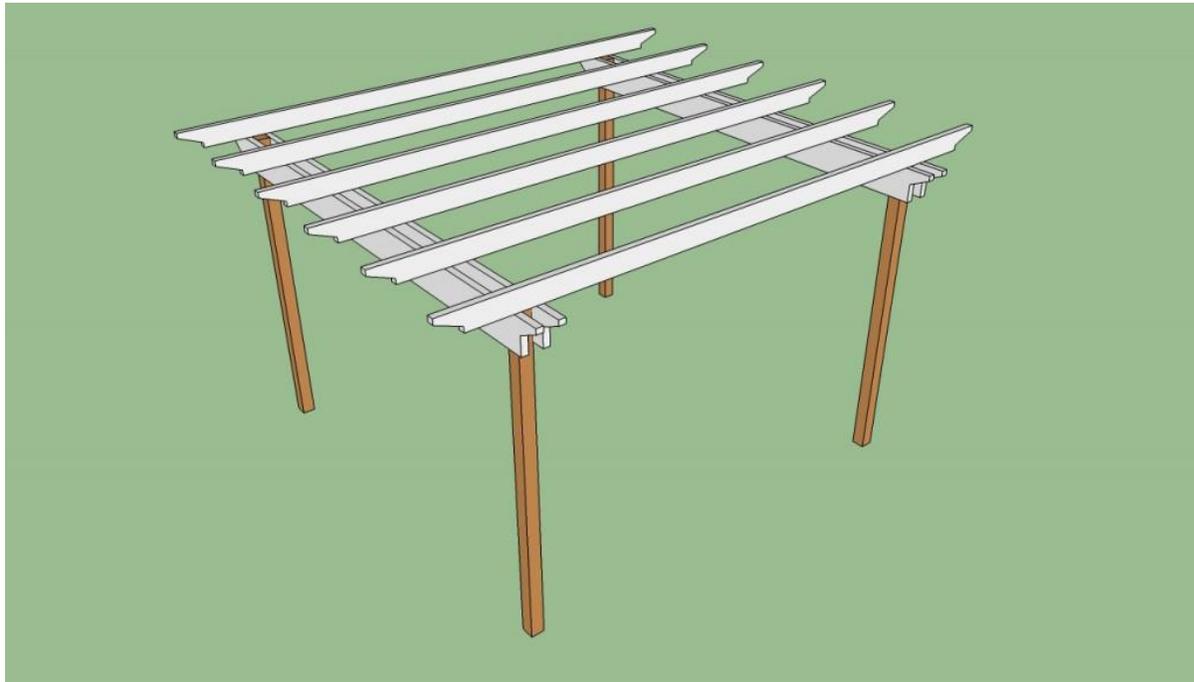
Use several C-clamps or ask a friend to hold them into place, while you toenail them using 4" screws. It is essential to plumb the crossbeams with a spirit level, therefore pay attention to this step if you want to get a professional result.



Free pergola plans

The second method is to cut notches in the 2×6 boards. This technique might look complex, but it is straight forward, if you use the right techniques. Make several parallel cuts inside the marked area and remove the excess material with a chisel. Smooth the recess with fine-grit sandpaper.

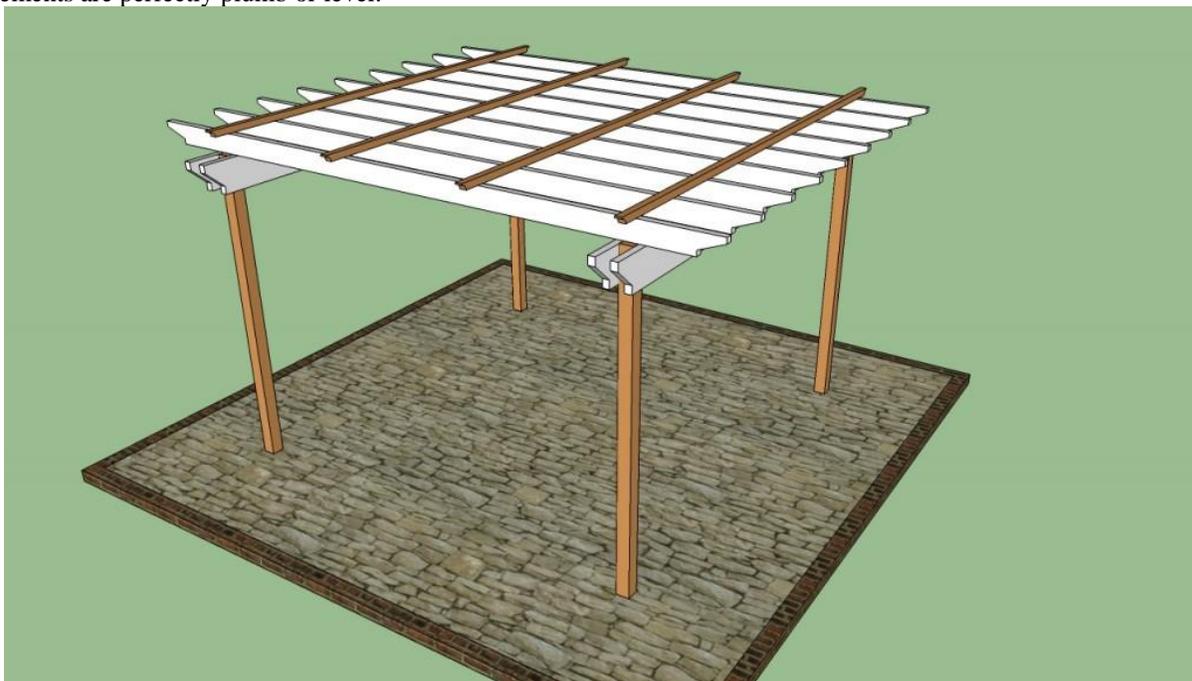
Smart tip: Don't forget that the dimension of the notches vary with the size of the posts you use. If you have installed 6×6 posts, you have to leave 5 1/2" between the notches. Afterwards, drive 6" screws through the top of the slats in the support beams, or toenail them with 4" screws.



Pergola plans free

Place the shade elements every 12" if you want an open pergola, or every 24" if you want to cover it with fiberglass panels. As you have seen, a pergola is a nice project for anyone who wants to create a cozy place to take dinner or to read a good book.

Smart tip: Work with great care and use a spirit level regularly, to make sure the posts, support beams and shade elements are perfectly plumb or level.



Free pergola plans

Next, install 2×2 slats over the pergola, to add a dramatic look to your construction. Fill the cracks, dents or holes with wood putty and sand the surface with a sand block. Afterwards, apply several coats of varnish to protect the pergola against wood decay and water damage.

Smart tip: When securing the components together, we recommend you to use galvanized or stainless steel screws.